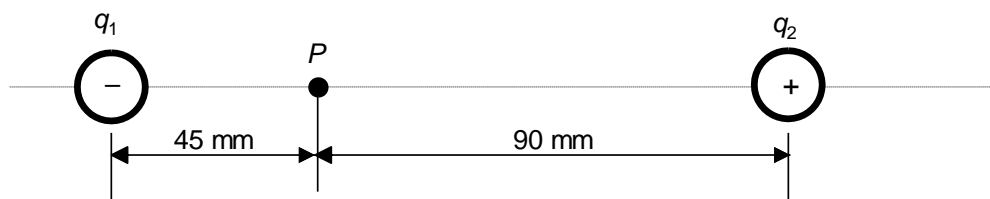


**SPH4UI DL W10 – Fields Practice Problems**

1. Two charged spheres are 135 mm apart. The charge on  $q_1$  is  $-5.6 \times 10^{-7} \text{C}$  and the charge on  $q_2$  is  $11.2 \times 10^{-7} \text{C}$ .

a. Find the net electric field at point P.

b. What would the force on an electron be if it was placed at point P? (the charge on an electron is  $1.602 \times 10^{-19} \text{C}$ )



2. An electron is placed in the middle of two charged plates which are separated by 8.5 cm. If the voltage across the plates is 120V, what is the acceleration of the electron? (the charge on an electron is  $1.602 \times 10^{-19} \text{C}$  and the mass of an electron is  $9.11 \times 10^{-31} \text{kg}$ )

